Making Sense of Shared Space for the Blind and Vision Impaired

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PART A:
Introducing Irish Guide Dogs for the Blind
Introducing Irish Guide Dogs for the Blind

- Co-founded by late Mrs Mary Dunlop and current President, Mr Jim Dennehy in 1976
- Since then, services offered for free, supported by voluntary services and donations
- Since 2005, our services have included the Assistance Dog programme for families of children with Autism
- IGDB is the first guide dog school in Europe to train assistance dogs to work with children who have autism
- Today, 15% of budget is funded by Statutory Bodies, remainder is raised through fundraising
- Since 1980, 580 partnerships have been trained
- Currently 62 employees based in Model Farm Road, Tuam and Dublin
1. Guide Dog Programme
• For blind and visually impaired persons
• Avoids obstacles - steers their owner around hazards, e.g. wheelie bins, lamp posts, road works.
• Finds pedestrian crossings
• Warns their owner when steps or stairs are approaching
• Finds entrance & exit to rooms and buildings
• Wears a harness with reflective markings

2. Assistance Dog Programme
• For families of children with Autism
• Same breed, age & temperament as guide dogs
• Helps control and improve behaviour of the autistic child by promoting calmness
• The bond between the child and the assistance dog enhances the child’s social skills and interaction with family and others
• Improves overall safety
• The family has greater freedom to go out to public places
Our services continued

3. Orientation and Mobility
   - Long cane training:
     1. Detects obstacles
     2. Detects width & depth of stairs & steps
     3. Detects tactile paving
     4. Map routes

4. Child Mobility
   - In partnership with the Department of Education

5. Independent Living Skills
   - Cooking and housekeeping
   - Gardening
   - Travel and Leisure
   - Sports
Our services continued

Recognising the difference

Guide Dog = White/ Yellow harness

Assistance Dog = Blue jacket with harness
Our breeds

- We breed our own dogs
- Labradors, Golden Retrievers, German Shepherds, Cross Breeds
- Goldendoodles (Golden Retriever Standard Poodle Cross)
- Labradoodles (Labrador Standard Poodle Cross)
- Labernese (Labrador Bernese Mountain Dog Cross)
- Intelligence, good temperament; and willingness to work
Our training

- **Puppy Walking** – a volunteer family foster a pup for 12 months
- **Socialisation** – visit public places such as supermarkets & shopping centres
- **Preparation for future work** as a guide dog or assistance dog
- **Training Centre** – undergo rigorous eight month training programme
- The new owner is trained as a guide dog owner or assistance dog owner
- **Cost:** €38,000 per guide or assistance dog partnership
PART B: The Law and People with Disabilities
Access for People with Disabilities

- Guide dogs and assistance dogs are permitted on to ALL public places including food premises, such as restaurants.

- Under the Equal Status Acts 2000 to 2004, people with disabilities (such as blind or vision impaired people) are entitled to receive the same level of service afforded to other customers. Service providers may make reasonable changes to how goods or services are supplied where, without these changes; it would be very difficult or impossible for people with disabilities to obtain those goods or services.
Access for People with Disabilities

The Disability **Act 2005** establishes a basis for -

- an independent assessment of individual needs, a related service statement and independent redress and enforcement for persons with disabilities;
- access to public buildings, services and information;
- Sectoral Plans for six key departments which will ensure that access for people with disabilities will become an integral part of service planning and provision
- an obligation on public bodies to be pro-active in employing people with disabilities
- a Centre for Excellence in Universal Design
PART C: A Matter of Perception
What do you perceive?
“Many people are more afraid of going blind than they are of premature death or heart disease, the results of a new international study have shown.”

Posted on Irish Health website on 06/03/2008
Some barriers in society

- Attitudes
- Policies and procedures
- Information
- Built environment
- Transport
PART D:
Designing for people with a Vision Impairment
How do people with sight loss operate?

- Rely on their other senses with ‘touch’, ‘hearing’, and ‘smell’ becoming the more dominant senses
- Over 80% of persons registered blind have some residual vision
- Using a long cane as an obstacle detector
- Using a guide dog as an obstacle avoider
- Central straight line principle
- Utilise the kerb as a navigational tool
- Colour contrast enhances perception and aids way finding
- Textured surfaces act as warnings and indicate pedestrian crossings
Consider the following when designing

1. Colour Contrast
2. Textural Contrast
3. Lighting
4. Signs
5. General tips

Examples of the good, the bad and the ugly
Colour contrast – Public Toilets
Colour contrast – Public Toilets
Colour contrast – Window markings
Colour contrast – Window markings
Colour contrast – Stairs / Escalators
Colour contrast – Stairs / Escalators
Colour contrast – Way finding
Colour contrast – Way finding
Colour contrast – Way finding
Colour contrast – Way finding
Colour contrast – IGDB’s new premises
Colour contrast – IGDB’s new premises

Consider lighting to derive full benefit of colour contrasts
Colour contrast – IGDB’s new premises
Colour contrast – Outdoor stairs
Colour contrast – Outdoor stairs
Colour contrast – Outdoor barriers
Colour contrast – Outdoor barriers
Texture – Stairs
Texture – Stairs
Texture – Escalators

OK
Texture – Escalators

Better
Texture – Floors
Texture – Floors
Texture – Alternate paving at crossings
Texture – Blistered paving at crossings
Lighting – Floors, ceilings, furniture
Lighting – Floors, ceilings, furniture
Signs – Public Toilets & Other

[Images of various toilet signs, including a sign for ladies only, a sign for gents at first floor level, and a sign for wheelchair accessibility.]
Signs – Public Toilets & Other
General Tips – Barriers or poles

Great but hazardous if not clearly marked
Consider its location and its casing / bed as it can be a hazard.
General Tips – Trees and Foliage

Use tactical paving, walkway barriers, and curbs to assist in directing the way.
General Tips – use blistered paving only at crossings

This is misleading as a vision impaired or blind person will interpret this as a crossing.
General Tips – avoid illegal parking
PART E: Street Environment & Shared Spaces Concept
Comparing the concept

Traditional Street Environment
• Pedestrians segregated from cyclists & motorists
• Audible signal controlled crossings with dished tactile kerb
• Pathway with standard kerb edge
• Pathway is for pedestrians only

Shared Spaces Environment
• Shared ‘social’ areas for all users – drivers, cyclists and pedestrians
• Intended as a Traffic Calming measure and to make streets more pedestrian-friendly
• Removal of traditional kerbs and footways
• None, or reduced, demarcation between areas traditionally used by vehicles and pedestrians
• Pedestrians negotiate the street through ‘eye contact’ with other users
Conceptual flaw

• The concept works off the premise that safety is improved as all users actively rely on mutual eye-contact in order to maintain safety and order.
• For a person who is blind or vision impaired, this principle is not appropriate.
• Vulnerable pedestrians, e.g. long-cane users, guide dog owners and assistance dog owners, are at a disadvantage.
Challenges posed by Shared Spaces

- No kerb to define pedestrian pathway
- Lack of audible controlled tactile pedestrian crossings with dished kerbs
- Lack of colour contrast and textural contrast
- Street furniture
- Wide walkways inhibit orientation
- Large groups of pedestrians

Blind and vision impaired people depend on kerbs and other tactile demarcations as orientation cues. Otherwise it is difficult to know where the pavement begins and ends.
Challenges for Guide Dogs and Assistance Dogs

• Trained to warn their owner when stairs & steps/kerbs are approaching. However, they are generally unable to react to colour or textural contrast.
• Target training guide dogs to use specific identified crossings becomes challenging.
• Lack of tactile control crossings as pedestrians are encouraged to cross where they wish.
• Stationary & moving obstacles create an overly complex workload.
• Higher risk of getting spooked by cyclists and motorists.
Catering for all users

- Under 10,000 blind and vision impaired persons registered blind in Ireland
- Shared Spaces in its current form does not cater for the needs of the blind and vision impaired
- Ireland Autism Action Group estimate 25,000 people are suffering from the spectrum disorder
- Families of children with Autism would also find shared spaces a challenge as children do have a tendency to bolt
- Tactile paving design must be consistent with the needs of both people with a vision impairment and people with a mobility impairment
Guide Dogs UK introduced and investigated the ‘Safe Space’ Concept

- Completed a study involving a number of blind and vision impaired people as well as a number of people with other disabilities

- Objective of the study was whether or not it is possible to define a ‘safe space’ as a counterpart to shared space

- For ‘Safe Space’ to work, there would need to be a clearly visible and detectable division between safe space within the shared space – it would be the equivalent of a footway
Study tested four design approaches

The project lead by Prof Ramboll Nyvig (commissioned through the University College of London) tested four potential design approaches:

1. The kerb is re-introduced in the street design in a compatible format in line with shared space concept
2. Instead of a kerb, a textured area is introduced between the shared space and safe space
3. The route is indicated by tactile paving – guidance path surface
4. Instead of a division between the 2 spaces, other measures such as central delineators are used to guide blind and vision impaired pedestrians
Recommendations and conclusions of the study

- The Guide Dog UK research shows that the shared space concepts presents significant difficulties for both blind and vision impaired participants and the participants with mobility impairments, not just in crossing the shared area, but also in terms of navigation and orientation.

- Their study recommends that a ‘safe space concept’ be applied within the shared space concept.

- The Safe Space would be seen as the equivalent of the footway in a traditional street but it would not prevent motorists, cyclists and pedestrians from sharing the larger part of the shared space area.

- While the study confirmed the need for a Safe Space within the Shared Space, it could not confirm the final design approaches to be recommended.

- It was concluded that more research needed to be done in this regard.
Recommendations and conclusions of the study

Some areas that would need further study are for example:

- Guidance paving proved ineffective as a solution for both groups therefore alternatives need to be investigated
- 100% of blind and vision impaired could detect the standard kerb and utilise it as a navigational tool
- Central delineator proved to have the most potential for suitability however the correct height and shape needs to be revisited
- The use of the delineators at bends and corners
- Colour contrast under different lighting arrangements
- Performance under wet and dry weather conditions
- Performance under day / night conditions
- The effect of additional cognitive loading
Examples of where Safe Space was not applied correctly in Ireland

Patrick Street, Cork City

O’Connell Street, Dublin
Patrick Street

Corduroy paving / warning paving is covered by street blocks, telephone booths, trees, bum barriers
Patrick Street in Cork

Lamp posts / Lights
Patrick Street in Ireland

Bins / Bump rails
Patrick Street in Ireland

Obstacles / Seating blocks
Patrick Street in Ireland

Blistered paving not to building line
Current challenges in the application of tactile surface paving in Ireland

- Lack of consistency in the use of tactile paving, e.g. different tactile surfaces are used to demarcate the pathway
- Controlled tactile crossings positioned incorrectly
- Significant increase in the use of street furniture (often blocking access to tactile surfaces)
- Inconsistent use of kerbs
- Lighting (i.e. spotlights) shining directly into the eyes of vision impaired pedestrians in problematic
Greatest challenge for engineers and designers

• No agreed standard that serves as a guideline for all designers, engineers and architects for design and application
• Awaiting revised (Part M) building standards from the Department of Environment, Heritage and Local Government
• Awaiting standards from the International Standards Association
To help you - current references

- **Building for Everyone, National Disability Authority**
- Guidance on the use of Tactile Paving Surfaces, Department for Transport, UK
- **Australia: AS 1428 (Set)-2003**: Design for access and mobility
- **Canada: Canadian Standards Association (CSA) B651-04:2004**: Accessible Design for the Built Environment
- **CEN/CENELEC (2002), Guide 6**: Guidelines for standards developers to address the needs of older persons and persons with disabilities, Brussels: CEN
- ISO 28803 (Under Development): Ergonomics of the physical environment - Application of international standards to people with special requirements
- **New Zealand: NZS 4121:2001**: Design for access and mobility: Buildings and associated facilities
- **South Africa: SANS 10246**: Accessibility of buildings to disabled persons
- **UK: British Standards Institute BS8300:2001**: Design of buildings and their approaches to meet the needs of disabled people
Concluding thoughts

• The Shared Space Concept - while innovative in and of itself - does not support the principle of social inclusion and universal design

• The Shared Space Concept puts additional stress on vulnerable citizens such as the elderly, the blind and vision impaired and people with other disabilities – thereby posing a threat to their safety

• Irish Guide Dogs for the Blind’s vision is to help our clients achieve greater mobility and independence

• Shared Spaces has proven to hamper that vision rather than support it
Concluding thoughts

• While creating a *Safe Space* within a Shared Space environment will go a long way to remedying the situation, this will only work if a standardised approach is applied in the design and application of our Building Standards.

• Until such time as best practice is achieved, the blind and vision impaired find Shared Spaces puts their independence and safety at risk.
Thank you